Welcome to today's Coffee Break presented by the Evaluation and Program Effectiveness Team in the Division for Heart Disease and Stroke Prevention at the Centers for Disease Control and Prevention.

I am Amara Ugwa and I am an ORISE Fellow with the Applied Research and Translation Team in the Applied Research and Evaluation Branch within the Division for Heart Disease and Stroke Prevention. I am serving as your moderator.   I am honored to introduce today's presenter Eileen Chappelle, who is a Health Scientist working on the Evaluation and Program Effectiveness Team in the Applied Research and Evaluation Branch.

Before we begin

All phones have been placed in SILENT mode.

Before we begin we have a few housekeeping items.

All phones have been placed in silent mode for this presentation which will last about 12 minutes. If you have a questions, please enter it on the Q & A tab at the top of your screen. As time permits, we'll address your questions at the end of the session.

Since this is a training series on evaluation, we do hope you will complete the poll and provide us with your feedback.

Disclaimer: The information presented here is for training purposes and reflects the views of the presenters. It does not necessarily represent the official position of the Centers for Disease Control and Prevention.

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So, without further delay. Let's get started. Eileen the floor is yours.

Thank you Amara.

Overview

- Indicators defined
- Importance of good indicators
- Process for selecting indicators
- Process for operationalizing indicators
- Tools and Resources
- Q&A and Poll

Today we will discuss how to define indicators, the importance of selecting indicators that capture what you are trying to evaluate, and a process for selecting indicators as well as operationalizing them. We will conclude the coffee break by sharing information about tools and resources that can support your use of indicators in your evaluation efforts.

Just so you know…

Today's session is an introduction, and not a "how-to" session. It will focus on use of indicators in your evaluation plan and not on performance measures.

This coffee break presentation is a brief introduction to selecting and operationalizing indicators and not a "how-to" training. You can obtain additional information through the references and resources that will be shared and the end of this presentation.

Please note that performance measures are a type of indicator but will not be the focus of this talk since we have several different programs represented in this webinar series. We'll focus on the use of indicators in your evaluation plan.

Indicators Defined

❏ **Merriam-Webster dictionary definition**
- A sign that shows the condition or existence of something
- A pointer or light that shows the state or condition of something
- A device that shows a measurement

❏ **An evaluation definition***
- Specific, observable, and measurable characteristics or change that will represent achievement of the outcome

* United Way of America. Measuring program outcomes: a practical approach. Alexandria, VA: United way of America; 1996

Here is the Merriam-Webster definition as well as an evaluation definition. As sign that shows existence of something.

So… What is an indicator?
Specific, observable, and measurable characteristics or change that will represent achievement of the outcome.

Indicators are signs of progress and are used to determine if a program is meeting its objectives and goals. (http://www.endvawnow.org/en/articles/336-indicators.html)

Note performance measures are a type of indicator. In this presentation, we are focusing on the indicators you would include in your evaluation plan.

Evaluation Plan Template

Evaluation Questions	Indicators	Data Sources	Methods	Timing, Duration, & Frequency of Data Collection	Analyses

❑ Evaluation Question: To what extent does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?

❑ Indicator: Change in number of minutes per week spent in moderate physical activity between baseline and 6 months after completing the lifestyle program

Source: WISEWOMAN Evaluation Tool Kit. http://www.cdc.gov/wisewoman/evaluation_toolkit.htm

Indicators are part of your evaluation plan.
Here is an evaluation plan template from the WISEWOMAN Evaluation Tool kit. I just want to demonstrate that indicators are one of the most important aspects of developing an evaluation after determining evaluation question. Once an indicator is selected if will influence the remaining categories of an evaluation plan such as the data sources, type of methods, and data collection.

Importance of Having Good Indicators

- Defines what will be measured
- Helps address your key evaluation questions and highlight potential areas of improvement or strength
- Helps focus your evaluation efforts
- Determines what you will be able to report to your stakeholders

Having good indicators is important.

 It helps defines what will be measured

Address key evaluation questions
Help be focused
As well as determines what you will be able to report to your stakeholders.

Strategies for Selecting Indicators

Now will I share a few steps in the process of selecting indicators.
There is more than one way to do this depending on time and resource available.

Process for Selecting Indicators

Helpful tip: Consider getting stakeholders' input during this process

□ Review the program framework or logic model

□ Develop a list of possible indicators

□ Assess each indicator

Selecting indicators is a great opportunity to engage your stakeholders. They could help define what success looks like and identify what makes sense to measure.   Working on clarifying wording of indicators can take a little time. Have stakeholders input can help with wordsmithing. They could also help identify and access data sources.

After determining the key evaluation question, the first step in selecting indicators is reviewing the program framework or logic model. Determine which area or box of the logic model you are interested in exploring. Brainstorm what aspects or features of the activity or outcome you are trying to explore. From the brainstorming, develop a list of potential indicators.
As you develop a list, consider any indicators used in previous similar efforts.
If time permits, do a quick literature search on the topic you are trying to explore.
Get input from other at this point to figure which indicator look the most promising.

WISEWOMAN Logic Model
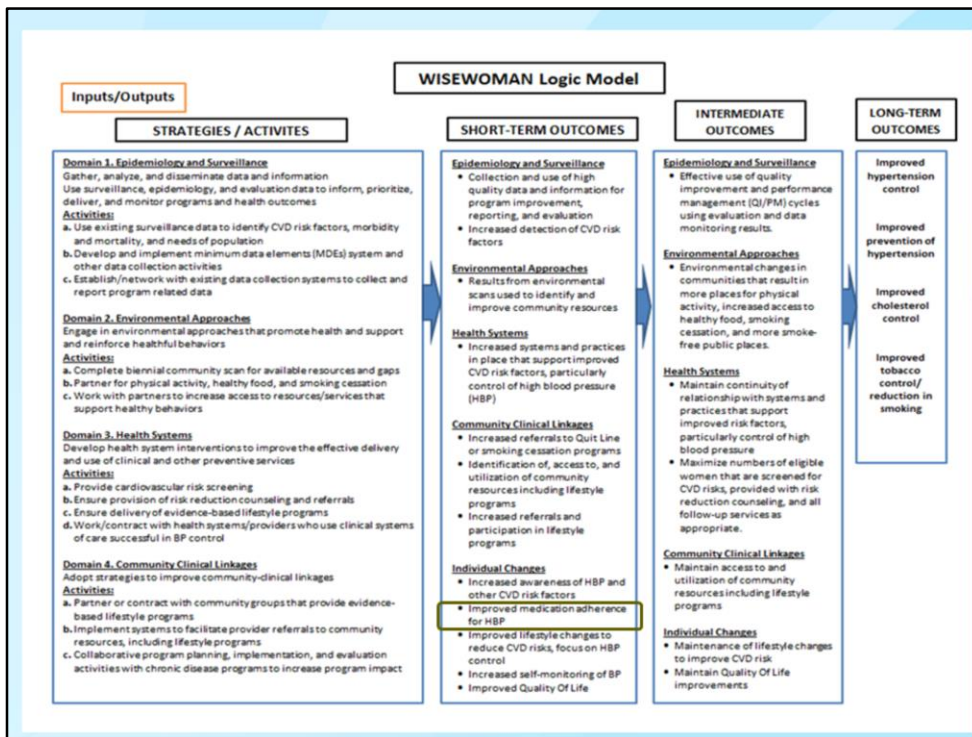
Here is example of a program logic model for the WISEWOMAN Program.

One of the short term outcomes under individual changes is increase medication adherence for high blood pressure.

How do you measure that? There are different ways to do that. You could look at:

- The number of hypertension medications that are refilled at the pharmacy

- You can ask participants how likely are participants going to take their medication daily as prescribed

- You can ask participants how often they missed taking their medication in the last week

- The percent of hypertension patients that have received a reminder about taking their medications in the last month

Criteria to Assess Potential Indicators

- Measurable
- Practical
- Reliable
- Relevant to your activities
- Useful for decision-makers
- Direct and precise
- Sensitive
- Capable of being disaggregated by demographics of interest

Data source: USAID and Measure Project

Give credit to the USAID and Measure Project for this slide.

Once you have gathered a list of potential indicators. Us this list of criteria to assess the indicators.

Now, look at each indicator on your list carefully. Review each one to see if it is:

- **measurable,** can be quantified and measured by some scale;
- **practical,** data can be collected on a timely basis and at reasonable cost;
- **reliable,** can be measured repeatedly with precision by different people;
- **relevant (attributable to YOUR ORGANIZATION),** the extent to which a result is caused by YOUR activities;
- **Useful for decision makers,** project staff and audiences feel the information provided by the measure is critical to decision-making;
- **direct and precise,** the indicator closely tracks the result it is intended to measure;

- **sensitive,** serves as an early warning of changing conditions; and
- **capable of being disaggregated,** data can be broken down by gender, age, location, or other dimensions where appropriate.

You will discard some possible indicators at this point because they do not meet the criteria listed above. This is a natural part of the process of selecting indicators.

This is not the only criteria but a suggestion.

Selecting the Best Indicators

❑ **Ask yourself the following questions to determine the best indicators:**

- What context of my program do I need to consider when selecting an indicator?
- Does the indicator help me gather information to answer my key evaluation questions?
- Will my stakeholders agree that the indicator is measuring what I intend to measure?
- Given resources available for evaluation, is it feasible to gather information for this indicator?

What context of my program do I need to consider when selecting an indicator?

By context, it could be maturity of the program. Was the program just launched or has it been implemented for several years?

Does the indicator help me gather information to answer my key evaluation questions? Or is it just nice to know.

Does the indicator measure what you to intend measure?

Is it feasible to collect information for this indicator? Is the information for this indicator worth the effort it takes to collect it?

Common Challenges with Indicator Selection

- ❏ Not linked to program activities
- ❏ Focusing on outputs instead of outcomes
- ❏ Indicators are unclear
- ❏ Too many indicators
- ❏ Lack of a data source for an indicator

Here are some common challenges in selecting indicators.

Indicator selected are not closely linked with program activities.

Outputs are the direct products of the activities while outcomes are the intended change that results from the activities. (add a definition of outputs and outcomes)

Indicators are unclear which may results in measuring different things each time.

Too many indicators. What is considered as having too many indicators in the evaluation plan?
You want to have about 1-2 indicators per result or at least one indicator per every core activity. No more than 8-10 indicators per area of significant program focus
(Source: UN Women United Nations Entity for Gener Equality and the Empowerment of Women. http://www.endvawnow.org/en/articles/336-indicators.html)

Lacking a data source for the indicator.

Select Challenge: Indicator not linked to program activities

❑ **You selected an indicator on improving quality improvement process in health systems such as:**

- Not Aligned Indicator: The number or percent of Plan Do Study Act (PDSA) cycles completed in the community health centers in your region
  - However, your program's efforts are to work with community health centers in Region X to help them obtain Patient Centered Medical Home (PCMH) designation from NCQA .
- Watch out for the lack of alignment between program effort and your indicator.
- Aligned indicator: The number of community health centers that have achieved PCMH designation since the start of the program.

PDSA- Plan Do Study Act

Patient Centered Medical Home designation from the National Committee for Quality Assurance

Select Challenge: Indicators are unclear or vague

❑ **You selected an indicator to measure an increase in team-based care in health system such as:**

- Unclear indicator: Number of teams working on blood pressure
  - Which teams?
  - Where are these teams working?
  - What about aspect of blood pressure are the addressing?
- Clear indicator: Number of health care teams in Region X that have been trained on team-based care to enhance blood pressure control by using clinical supports for medication adherence

The first indicator is not specific enough on what is being measured.

Here are questions you can ask yourself.

The Clear indicator specifies which team are the focus and that they had been trained on team-based care.

Strategies for Operationalizing Indicators

Definition for Operationalization

❑ Operationalization is the process of strictly defining variables into measurable factors. The process defines fuzzy concepts and allows them to be measured, empirically and quantitatively.

Source: Martyn Shuttleworth (Jan 17, 2008). Operationalization. Retrieved Oct 30, 2015 from Explorable.com: https://explorable.com/operationalization

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Operationalization is the process of strictly defining variables into measurable factors. The process defines fuzzy concepts and allows them to be measured, empirically and quantitatively.

In other words, defining all aspects of an indicators so it can be understood by all involved and measured consistently.

Operationalizing of indicators helps with communicating the concept to all involved.

Source: USAID presentation
http://www.cpc.unc.edu/measure/resources/training/materials/avian-and-pandemic-influenza-monitoring-and-evaluation-1/selecting-and-operationalizing-indicators/view

Creating Indicator Profile or Reference Sheet

- Basic information on the indicator
- Description of what it measures
- Define key terms
- Plans for data collection
- Data sources
- Data limitations
- Data reporting plans

Part of operationalization of indicators is developing an indicator profile reference sheet.

For the Indicator Profile or Reference Sheet think about what information is needed to make the indicator as clear as possible for data collection and analysis. Here is a list of topics to include in the indicator profile.

Concepts – Key concepts that need to be defined (e.g. electronic medical record, system, provider,
workplace)
Intended Population – The intended population for HDSP initiative (e.g. Non-institutionalized adult US
population, US businesses with <250 employees)
Numerator – Define the characteristics of the population of interest (e.g., adults age 35+ with
hypertension, workplaces with smoke-free campuses)
Denominator – Define the universe to which the numerator is being compared (e.g., all adults age
35+, all US workplaces)
Data Source – Chosen data source including specific questions or data elements, if applicable

(e.g. BRFSS, claims data, state policy inventory)
Time period – Months, year, or years of interest (e.g., 2008, 2005 – 2009)
Frequency of Collection – Periodicity of data collection (e.g. annually, biennially, every five
years)

You may consider adding another row like
How the information will be used to answer the evaluation question?

The Indicator Profile or Reference Sheet should have enough information so your stakeholders and data collector can understand what is being measured and how.

Closing thoughts

- Work with your evaluation stakeholders to select and operationalize your indicators.
- Use criteria to help you select the best indicators for the evaluation questions you are trying to answer.
- Ensure everyone is on the same page by taking the time to create an indicator profile or reference sheet. This step will help clarify what the indicators are and how you will use them in your evaluation.
- Make sure that every indicator included in your evaluation plan will be useful is addressing your key evaluation questions.

Selecting and operationalizing indicators is a collaborative process and a great opportunity to work with your stakeholders.

To be consistent, use pre-determined criteria to help you select the best indicators for the evaluation questions you are trying to answer.

Take the time to create an indicator profile to ensure everyone is on the same page.

Lastly, make sure the indicator you select will address your key evaluation questions.

Helpful References

❑ Using Indicators for Program Planning and Evaluation
  ▪ http://www.cdc.gov/dhdsp/programs/spha/evaluation_guides/indicators.htm
❑ Evaluation Guide: Developing an Evaluation Plan
  ▪ http://www.cdc.gov/dhdsp/programs/spha/evaluation_guides/evaluation_plan.htm
❑ USAID Source: USAID presentation
  ▪ http://www.cpc.unc.edu/measure/resources/training/materials/avian-and-pandemic-influenza-monitoring-and-evaluation-1/selecting-and-operationalizing-indicators/view
❑ USAID Performance Monitoring and Evaluation TIPS: Selecting Performance Indicators
  ▪ http://pdf.usaid.gov/pdf_docs/Pnadw106.pdf

Here are some helpful resources for your reference

Any Questions?

At this time, we'll take an questions but first we'll check to see if any questions have come in through the Q&A tab.

What is the different between indicator and performance measures?

An indicator is what change is being measured. Your gas gauge shows you how much gas you have in your car and your odometer tells you how far you have travelled.

A performance measure is a quantifiable indicator used to assess how well something is achieving the desired objectives. For example, fuel efficiency is having a car get at least an average of 30 miles per gallon.

Can indicators be qualitative? Yes.
For example, Determined key organization changes that lead to effective implementation of her modules
OR
Determining facilitators (training) to obtaining certification.

Evaluations can be process and outcome. Are there also different types of indicators- outcome and process indicators?

Yes. Your process indicator relate to your activity and output boxes that relate to efforts made. While outcome indicators relate to the boxes to the far right of the logic model and related to results .

For example a process indicator could be The number of trainings provided to health care providers while the outcome indicator is the number of health providers that have changed the behavior you provided training on.
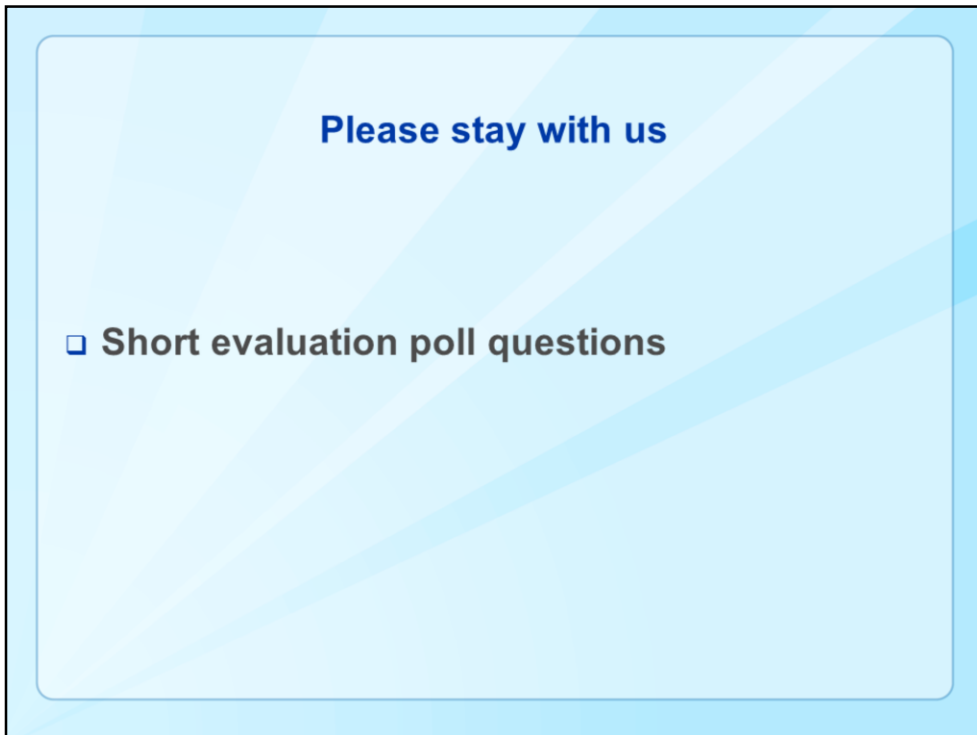
Please stay with us a few poll questions.

This coffee break was worthwhile for me.
Yes
very worthwhile
Somewhat
A little
No not at all

The level of information was
Too basic
About right
Beyond my needs

The information presented was helpful to me.
Yes
Somewhat
No not at all

If you have suggestions for future topics or questions in general, please email us at:

AREBHeartInfo@cdc.gov

If you have specific questions related to today's presentation that have not been addressed please send them to AREBHeartInfo@cdc.gov and we'll be happy to respond.

As we are always looking for feedback and input if your have suggestions for future topics or questions in general, please this same e-mail address as well.

The next coffee break will be held in January 2016. Information will be e-mailed to you on how to access the next coffee break.

Thank you again for joining us and have a great day. This concludes today's call.